

Lake Munson Lake Vegetation Index Results (5-8-2014)

The Lake Vegetation Index (LVI) is a multi-metric index that evaluates how closely a lake's plant community resembles one that would be expected in a condition of minimal human disturbance. It is based on a rapid field assessment of aquatic and wetland plants as indicators of various effects of human disturbance over time. Plants respond to physical disturbances such as introduction of exotic species or lakeshore alterations,

and chemical disturbance such as introduction of excess nutrients, particulates, or herbicides from the surrounding land uses.

The LVI method is performed from a boat, and involves dividing a lake into 12 units and identifying plants in 4 of the 12 units. Plants are identified in the selected unit by a visual boat "drive by" and also via a transect approach. The resulting data is used to calculate the LVI and is evaluated according to the scoring system in Table 1.

TABLE 1. Category names, ranges of values for LVI, and example descriptions of biological conditions typically found for that category.

Aquatic life use category	LVI Range	Description
Exceptional	78–100	Nearly every plant present is a species native to Florida, invasive taxa typically not found. About 30% of taxa present are identified as sensitive to disturbance.
Healthy	43–77	About 85% of plant taxa are native to Florida; invasive taxa present. Sensitive taxa have declined to about 15%.
Impaired	0–42	About 70% of plant taxa are native to Florida. Invasive taxa may represent up to 1/3 of total taxa. Less than 10% of the taxa are sensitive.

The Lake Vegetation Index score for Lake Munson was 57, placing the lake's vegetative community in the healthy category.

Sixty nine species were found during the survey. The native species, pond cypress (*Taxodium ascendens*), was the most dominant species in the lake. Other native shoreline vegetation included; red maple (*Acer rubrum*), buttonbush (*Cephalanthus occidentalis*) and swamp tupelo (*Nyssa sylvatica biflora*).

Unfortunately, silk tree (*Albizia julibrissin*), camphor tree (*Cinnamomum camphora*), wild taro (*Colocasia esculenta*), Chinese privet (*Ligustrum sinense*), water hyacinth (*Eichhornia crassipes*), Peruvian prim-

rosewillow (*Ludwigia peruviana*), Japanese climbing fern (*Lygodium japonicum*), wandering jew (*Tradescantia zebrina*), water spangles (*Salvinia minima*), and Chinese tallow (*Sapium sebiferum*), all listed as Category I Invasive Exotics by the Florida Exotic Pest Plant Council were found in the littoral zone of Lake Munson. Tung tree (*Aleurites fordii*), alligator weed (*Alternanthera philoxeroides*), Chinese wisteria (*Wisteria sinensis*) and rattlebox (*Sesbania punicea*) are Category II Invasive Exotics found in the lake. Other non-native species in and around the lake include the exotic giant reed (*Arundo donax*), Japanese privet (*Ligustrum japonicum*), parrot feather watermilfoil (*Myriophyllum aquaticum*), and

South American skullcap (*Scutellaria racemosa*).

For a complete list of plants found during the LVI survey, please see Table 2.

TABLE 2. Scientific and common names of the plants identified during the Lake Munson LVI survey (5-8-14).

Scientific Name	Common Name
<i>Acer rubrum</i>	red maple
<i>Albizia julibrissin(I)</i>	silktree
<i>Aleurites fordii (II)</i>	tung tree
<i>Alternanthera philoxeroides(II)</i>	alligator weed
<i>Ampelopsis arborea</i>	peppervine
<i>Apios americana</i>	ground nut
<i>Baccharis glomeruliflora</i>	silverling
<i>Boehmeria cylindrica</i>	false nettle
<i>Campsis radicans</i>	trumpet vine
<i>Carex crus-corvi</i>	ravenfoot sedge
<i>Carex decomposita</i>	cypressknee sedge
<i>Carex festucacea</i>	fescue sedge
<i>Carex lupuliformis</i>	false hop sedge
<i>Cephalanthus occidentalis</i>	buttonbush
<i>Cinnamomum camphora (I)</i>	camphor tree
<i>Colocasia esculenta (I)</i>	wild taro
<i>Cyperus odoratus</i>	fragrant flatsedge
<i>Eichhornia crassipes (I)</i>	water hyacinth
<i>Eupatorium sp.</i>	Eupatorium
<i>Fraxinus caroliniana</i>	Carolina ash
<i>Galium uniflorum</i>	oneflower bedstraw
<i>Gelsemium sempervirens</i>	evening trumpet flower
<i>Hydrocotyle sp.</i>	water pennywort
<i>Hymenocallis sp.</i>	spiderlily
<i>Ilex opaca</i>	American holly
<i>Iris hexagona</i>	dixie iris
<i>Juncus effusus</i>	common rush
<i>Lemna minor</i>	common duckweed
<i>Leucothoe racemosa</i>	sweetbells
<i>Ligustrum japonicum</i>	Japanese privet
<i>Ligustrum sinense (I)</i>	Chinese privet
<i>Liquidamber styraciflua</i>	American sweetgum
<i>Ludwigia peruviana (I)</i>	Peruvian primrosewillow
<i>Lycopus rubellus</i>	taperleaf water horehound
<i>Magnolia grandiflora</i>	southern magnolia
<i>Magnolia virginiana</i>	sweetbay magnolia

<i>Mikania scandens</i>	climbing hempvine
<i>Morus rubra</i>	red mulberry
<i>Musa</i> sp.	banana tree
<i>Myrica cerifera</i>	wax myrtle
<i>Myriophyllum aquaticum</i>	parrot feather watermilfoil
<i>Nyssa aquatica</i>	water tupelo
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo
<i>Packera glabella</i>	butterweed
<i>Parthenocissus quinquefolia</i>	Virginia creeper
<i>Phanopyrum gymnocarpon</i>	savannah panicgrass
<i>Platanus occidentalis</i>	American sycamore
<i>Polygonum densiflorum</i>	denseflower knotweed
<i>Polygonum punctatum</i>	dotted smartweed
<i>Pontederia cordata</i>	pickerelweed
<i>Prunus serotina</i>	black cherry
<i>Ptilimnium capillaceum</i>	mock bishop's weed
<i>Quercus laurifolia</i>	laurel oak
<i>Rubus argutus</i>	sawtooth blackberry
<i>Rumex</i> sp.	dock
<i>Sabal palmetto</i>	cabbage palm
<i>Sacciolepis striata</i>	American cupscale-grass
<i>Salix carolina</i>	coastal plain willow
<i>Salvinia minima</i>(I)	water spangles
<i>Sambucus canadensis</i> subsp. <i>nigra</i>	American elderberry
<i>Sapium sebiferum</i>(I)	Chinese tallow tree
<i>Saururus cernuus</i>	lizard's tail
<i>Schoenoplectus californicus</i>	giant bulrush
<i>Schoenoplectus pungens</i>	threesquare bulrush
<i>Scirpus cubensis</i>	burhead sedge
<i>Scutellaria racemosa</i>	South American skullcap
<i>Sesbania punicea</i>(II)	rattlebox
<i>Smilax laurifolia</i>	laurelleaf greenbrier
<i>Taxodium ascendens</i>	pond cypress
<i>Toxicodendron radicans</i>	eastern poison ivy
<i>Tradescantia fluminensis</i> (I)	wandering jew
<i>Triadenum walteri</i>	greater marsh St. John's wort
<i>Tripsacum dactyloides</i>	eastern gamagrass
<i>Vitis rotundifolia</i>	muscadine
<i>Wisteria sinensis</i> (II)	Chinese wisteria
<i>Woodwardia areolata</i>	netted chain fern
<i>Woodwardia virginica</i>	Virginia chain fern

I - Category I Invasive Exotics

II - Category II Invasive Exotics

For additional information about the LVI please review the Florida Department of Environmental Protection's [LVI Primer document](#).

For more detailed information about the above species, please visit the [Atlas of Florida Vascular Plants](#) website.

For additional information about Category I and II invasive exotic plants, please visit the [Florida Exotic Pest Plant Council](#) webpage.